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(54) Title: WHEAT PLANTS HAVING INCREASED RESISTANCE TO IMIDAZOLINONE HERBICIDES

(57) Abstract: The present invention is directed to plants having increased resistance to an imidazolinone herbicide. More particularly, the present invention includes wheat plants and triticale plants containing at least one IMI nucleic acid such as an imidazolinone resistant Brookton BR-8 or Krichauff K-42 cultivar. The present invention also includes seeds produced by these wheat plants and triticale plants and methods of controlling weeds in the vicinity of these wheat plants.



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INTERNATIONAL SEARCH REPORT

International application No.

PCT/IB2003/004645

A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl. 7: A01H 5/00 A01H 5/10 C12N 15/60 C12N 9/88

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

See Electronic Database

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

See Electronic Database

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPIDS; CA; MEDLINE; BIOSIS; AGRICOLA; DGENE; ANGIS: triticum, aestivum, wheat, tritcale, imidazol?, resistan?, toleran?, susceptib?

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Newhouse <i>et al.</i> (1992) "Tolerance to Imidazolinone Herbicides in Wheat" Plant Physiol. Vol 100: 882-886 (see the whole document)	1-7, 11-14, 32, 36-41, 47, 51, 53-55
X	EP 0 58 161 B1 (AMERICAN CYANAMID COMPANY) 10 May 2000 (see the whole document)	1-7, 11-14, 32, 36-41, 47, 51, 53-55

☒ Further documents are listed in the continuation of Box C☒ See patent family annex

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GenBank Database Accession BF200418 6 November 2000 Anderson O. <i>et al.</i> "The structure and function of the expressed portion of the wheat genomes-Vegetative apex cDNA library from <i>Triticum monococcum</i> "	42-46
X	GenBank Database Accession BE417248 24 July 2000 Anderson O. <i>et al.</i> "International Triticeae EST Cooperative (ITEC): Production of expressed sequence tags for species of the triticeae"	42-46
P, X	WO 2003/014356 A1 (UNIVERSITY of SASKATCHEWAN) 20 February 2003 (see the whole document)	1-14, 19-56
P, X	WO 2003/014357 A1 (UNIVERSITY of SASKATCHEWAN) 20 February 2003 (see the whole document)	1-14, 19-56
P, X	WO 2003/013225 A2 (NORTHWEST PLANT BREEDING COMPANY) 20 February 2003 (see the whole document)	1-14, 19-56

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/IB2003/004645

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member					
EP	0508161	AU	14710/92	CA	2065189	CN	1065573
		CS	9201052	EP	0965265	FI	921528
		HU	62137	IE	921101	JP	5219848
		MX	9201593	NZ	242228	US	6339184
		ZA	9202511				
WO	03014356	CA	2456311	EP	1414976		
WO	03014357	CA	2456314	EP	1414975		
WO	03013225						
Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.							
END OF ANNEX							